WASHINGTON
HIGHER
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DRAFT: Doctor of Philosophy in Rehabilitation Science University of Washington

Introduction

The University of Washington is seeking HECB approval to offer a Doctor of Philosophy in Rehabilitation Science. Offered by the Department of Rehabilitation Medicine (DRM), the program would prepare students for research and faculty positions in Rehabilitation Sciences. This interdisciplinary Ph.D. program would build upon the students' successful professional background in occupational therapy, physical therapy, speech and language pathology, rehabilitation counseling, prosthetics and orthotics, medicine, engineering, or another related field with a focus on links between and among pathophysiology, impairment, functional limitations, and societal limitations. If approved, the program would begin in fall 2006 and enroll up to six students.

Relationship to Institutional Role and Mission and the Strategic Master Plan

The program would draw on the strengths of the existing faculty of the department and help to support the continued growth of the research program. The Ph.D. in Rehabilitation Science would contribute to the mission of the University of Washington to support the advancement and dissemination of knowledge through supported research and through the preparation of the next generation of faculty in students' respective professional fields.

The program goals are consistent with the strategic master plan goals of providing opportunities for students to earn degrees and of responding to the state's economic needs. The program would be the first in the Northwest, and one of fewer than 10 nationally to offer professionals from a range of disciplines the opportunity to earn a research-oriented doctorate in Rehabilitation Sciences. Graduates of the program would fill faculty positions to meet demand for greater numbers of qualified clinicians and conduct research that would improve practice.

Program Need

The Ph.D. proposal is a response to needs expressed by students, employers, and community stakeholders. The HECB's *State and Regional Needs Assessment* finds that the state produces fewer professional and doctorate degrees than are required to meet the needs of Washington employers.

The examination of employer demand for the program is broken down by demand within several of the specialties that would feed into the Ph.D. program. The primary purpose of the proposed degree program is to prepare new faculty who would conduct research and teach in professional training programs at all levels. In each specialty, the need for post-professional doctoral prepared faculty is driven, at least in part, by the need for more practitioners.

The need for faculty in these fields is substantial and growing. Recent data from national associations indicate that more than half of all faculty in occupational therapy, physical therapy, and prosthetics and orthotics are under-prepared for their positions. In 2005, institutions reported 122 faculty vacancies in physical therapy. Between 1991 and 2001, institutions reported 130 annual vacancies for doctoral-level faculty in communication disorders and sciences.

The need for trained professionals in all rehabilitation science fields is also growing. According to the U.S. Bureau of Labor Statistics, positions in occupational therapy, physical therapy, and communication disorders and sciences are growing faster than average. The number of jobs for orthotists and prosthetists are expected to grow at about the average. Other sources show a strong need for rehabilitation counselors.

The faculty needed to teach students who will become occupational therapists should appropriately be prepared at the post-professional doctoral level. However, the American Occupational Therapy Association lists only 10 post-professional doctorate programs nationwide, and none in the Pacific Northwest. The need for occupational therapists is expected to grow 21 to 35 percent through 2012, further straining the need for well-prepared faculty. The proposal cites a recent study focusing on needs in the Pacific Northwest in which 24 percent of respondents reported vacancies and 64 percent reported difficulty hiring. Washington projections of employer need are for 74 openings annually through 2012. Beginning in 2007, the entry level requirement for occupational therapists will be a master's degree.

Equally concerning is difficulty hiring appropriately prepared faculty to train students to become physical therapists. In a 2002 survey, the American Physical Therapy Association reported that only 43 percent of core faculty in physical therapy programs had a Ph.D. and that institutions had nearly 100 current[1] vacancies. In addition, another 68 positions were expected to be vacant and 43 new positions were yet to be filled. Graduates of the proposed program could become faculty in Doctor of Physical Therapy programs. The minimum training requirement for physical therapists is now the professional doctorate (DPT). Nationally, the number of positions in physical therapy is expected to grow 21 to 35 percent through 2012. In a 2003/04 survey of Washington hospitals, 62 percent of respondents reported that recruiting for physical therapists was "very difficult." Analysis of Washington employment projections indicates that 122 open positions in physical therapy are expected each year through 2012.

The proposed program would also prepare faculty for communication disorders and sciences openings. In 2000-2001 (the last year for which data are available) there were 157 faculty

[1] Current at the time of the survey in 2002.

openings nationally, with 83 doctoral graduates projected for the same period. Only 58 percent of faculty searches were successful that year. Demand for students of communication disorders and sciences programs also is expected to grow faster than average nationally. Currently, UW offers the only Ph.D. program in Communication Disorders and Sciences in the Northwest. The proposed program would complement the existing degree program with an emphasis on clinical research and practice specific to people with disabilities. Nationally, the number of positions in speech and language pathology is expected to increase faster than average job growth. In Washington, 103 new openings are projected each year through 2012.

There is a shortage of qualified faculty to prepare rehabilitation counselors. In a 2004 study, 48 percent of faculty respondents indicated they would leave their academic posts within the next 10 years. The nearest Ph.D. program for rehabilitation counseling is offered at the University of Arizona. Rehabilitation counselors are typically trained at the master's degree level. It is anticipated that 45 percent of existing agency counselors will retire within the next five years. In Washington, there is a projected annual demand for rehabilitation counselors to fill 431 positions per year through 2012.

Physiatry is "a special branch of medicine specifically dedicated to the diagnosis and treatment of physical disability. Physiatrists are doctors who are certified as specialists in rehabilitation medicine by the American Board of Physical Medicine and Rehabilitation."[2] According to a 2000 survey by the Association of Academic Physiatrists (the most recent year for which data are available), 45 physical medicine and rehabilitation programs were recruiting for 67 academic positions. The Ph.D. in rehabilitation sciences would complement the residency program and prepare doctors to take academic positions. Physical medicine and rehabilitation (PM&R) is taught at only 88 of 132 medical schools in the country. The University of Washington's Department of Rehabilitation Medicine offers the only residency program in PM&R in the Northwest.

In the fields of prosthetics and orthotics, the proposed degree would respond to the need for qualified researchers. The American Academy of Orthotists and Prostetists (AAOP) has expressed a goal of encouraging researchers to conduct investigations in clinical prosthetic and orthotic practice. The need for practitioners is much smaller than the other areas discussed; however, by 2020, the demand for orthotic care is expected to increase by 25 percent and the demand for prosthetic care is expected to increase by 47 percent due to the aging population.

Student demand for the program was assessed based upon inquiries received over the past several years and the department's experience with three federal training grants in which students were prepared to meet demand for occupational therapists and physical therapists in pediatric practice. These programs have been extremely competitive and only serve a small segment of the population the proposed program would serve. In addition, undergraduate students who take the currently offered minor in rehabilitation science have expressed demand

[2] National Spinal Cord Injury Association Resource Center
http://www.eskimo.com/~jlubin/disabled/nscia/fact11.html

for the proposed program. In the past four months, 28 students have inquired about the program and nine students have applied or are applying to the program.

The proposed program serves the community by preparing professionals to take on faculty positions to prepare the next generation of clinical service providers and to conduct research that would improve clinical practice.

The proposed program would be the first research-oriented Doctorate in Rehabilitation Science to be offered in Washington, and one of only 10 nationally.

Program Description

The primary focus of the program would be to prepare researchers, educators and leaders in rehabilitation science to contribute to the development of rehabilitation practice and policy. The program would help students to develop content knowledge in rehabilitation science, enable graduates to conduct research that will inform service delivery and policy, and provide students with tools to teach in a higher education classroom and clinical settings.

Students would be admitted to the program on a two-year cycle, with a new cohort every other year. In most cases, applicants would have completed a degree program and obtained certification or licensure (where appropriate) in occupational therapy, physical therapy, speech and language pathology, rehabilitation counseling, prosthetics and orthotics, medicine, engineering or a related field. In addition, applicants would typically be expected to present evidence of clinical expertise and leadership, a GPA of 3.0 or higher, GRE scores of 600 or higher, letters of reference, and a goal statement. Applications would be reviewed by an eight-member review committee. In the first year, the program would accommodate 6 FTE students and would grow to approximately 12 FTE students at full enrollment in the fifth year.

Students would complete a minimum of 100 quarter credits (66 semester credits) and would typically complete their degree program within four to five years. The curriculum is composed of a core of 21 credits, a research requirement of 18 credits, 5 credits in teaching, 3 cognate areas of at least 6 credits each and 30 credits for the dissertation. Up to 30 credits of coursework could be completed in another post-professional degree program. An individual student's course of study would be flexible within this framework and would need to be approved by the student's examination committee. Students who are unable to complete their studies would have an option to apply their earned credits toward a master's degree.

The program would draw on 10 core faculty and 20 associate faculty, providing depth and breadth of experience. The core faculty, including the program director, would be diverse in terms of discipline and rank. Six disciplines are represented among the core faculty, all of whom have experience with Ph.D. level students. Associate faculty would also provide teaching, serve as advisors, and serve on examination committees.

Students would be assessed throughout the program. The proposal outlines clear student learning objectives and provides a means to assess students throughout the program. Objectives for an individual student would be further defined through the approval of a course of study and a dissertation topic. Students would be assessed on individual coursework as well as key benchmarks within the course of study, including prospective candidacy, a research and inquiry presentation, general examinations, acceptance of a dissertation proposal, and a final examination.

The program would be assessed through a variety of approaches as well. Program goals are well defined. Included within the program assessment plan is an assessment of the success in attracting and retaining a diverse student body. Program quality would be assessed through examination of numerous factors, including average time to completion of key student benchmarks, student accomplishments (e.g. publications, awards, grants) and accomplishments of graduates collected upon graduation and every five years thereafter. Course evaluations, individual student feedback, and faculty feedback also will provide information that will be used to fine-tune the curriculum over time.

Diversity

The proposal outlines a comprehensive strategy to encourage diversity within the program. A diversity recruitment and retention advisory council would assist the department in implementing a strategy to support the department's efforts to attract and retain a diverse student body. In addition, the department already has identified faculty who currently participate in outreach activities to promote diversity in the professions through campus organizations and activities. The program would collaborate with a variety of existing groups on campus to promote the program and to provide service to students enrolled in the program. The department also has identified outside organizations and associations that would help the recruitment efforts.

External Review

The program was reviewed by a committee of experts, including three UW faculty and two external reviewers. In addition to the committee report, each external reviewer submitted a letter outlining their specific assessments of the program. The external reviewers were:

- Irene R McEwen, Professor, Department of Rehabilitation Science, University of Oklahoma Health Sciences Center, College of Allied Health
- Charles Christiansen, Dean and Professor, School of Allied Health Sciences, University of Texas Medical Branch.

The review resulted in a series of recommendations to improve the proposal and ultimately the program. The committee strongly supported the program for the following reasons:

(1) Strong employer demand, especially with regard to appropriately trained faculty,
(2) Lack of a similar program in the Northwest,
(3) Quality of the Department of Rehabilitation Medicine at the University of Washington, especially its research program,

(4) High-quality faculty with the expertise to deliver the proposed program and deliver the core curriculum and cognate areas.

The committee was concerned that the proposal to admit students only every other year may limit the program's ability to attract the most qualified applicants in a given year. Program developers responded that especially well-prepared students may be considered in alternate years on a case-by-case basis.

The committee also found a need for greater clarification in some areas. For example, the program "must provide more than a mechanism for students from multiple practice professions to earn their Ph.D." Rather, "students must emerge from the program with a broader and more integrated perspective than … would be gained by advanced study within the practice discipline alone." To accomplish this goal, the committee recommended that the program employ a guiding framework that would focus the work of faculty and students. Program developers responded by explicitly defining the underlying framework, based on research within the discipline which guided the development of the program, and by adding an introductory course that would broaden students' perspectives and understanding of the different facets of the rehabilitation process.

The committee also made suggestions related to the alignment of the competencies expected in the general exam and those expected in the core coursework, as well as questions about the cognate requirements and the credit requirements for students who enter with completed graduate coursework. Program developers provided further clarification on these issues, highlighting the competencies expected in the general examination and the alignment with core course requirements, further definition of the cognate requirements, and criteria through which students could petition to have up to 30 credits of previous graduate level coursework applied to the degree requirements.

Several recommendations around distance delivery, online outreach, and course sharing with other institutions were provided. The program developers indicated a desire to use technology as appropriate, but expressed a need for students to interact in person and said that, at least in the near term, the program would focus on site-based delivery.

The developers also expressed a need to focus on retention as well as recruitment of students. The program responded by adding retention strategies to the charge of the Diversity Recruitment Advisory Council. In addition, the program will utilize a cohort model that will provide students with a common core experience, opportunities to support one another, and a strong mentor relationship with faculty.

Student financial support also was a concern raised by the committee; the department has seen substantial growth in grant funding over the past 12 years and expects to continue to have enough graduate research assistantship positions to support students in the program.

Finally, the committee recommended several specific collaborations and courses, including greater collaboration with the school of medicine and school of social work, the addition of a

grant-writing course, and space for students and faculty to collaborate. The program has added a grant writing course and is working to strengthen the collaborations as suggested by the reviewers. The School of Medicine has committed to funding and securing the additional space required by the Ph.D. in Rehabilitation Science.

Dr. McEwen recommended approval of the proposed program in concurrence with the committee report. She further suggested that graduates of the program would be heavily recruited as faculty researchers and cited the severe shortages of qualified faculty and the premium placed on strong interdisciplinary research skills by hiring departments. McEwen also highlighted the need to cater to students who would be unable or unwilling to give up their current positions in order to enroll as full-time students.

Dr. Christiansen also recommended approval of the proposed program in concurrence with the full committee report, reiterating many of the points made in that report. He highlighted the need for the program, especially in the western United States where no similar programs are currently in place. Christiansen cited interviews with prospective students to substantiate demand for the program as well as changes in the professions that would be supported by the program. He was complimentary to the faculty, citing the depth and breadth of experience as a key strength of the proposal.

Program Costs

The program would draw on existing faculty expertise. Program costs are estimated, based on one full-time faculty position. The one full-time faculty position would include .5 FTE program director, .2 FTE administrative core faculty, and .3 FTE teaching faculty (distributed quarterly based on teaching assignments). In addition, the program would employ a part-time program operations specialist (.5 FTE).

Capital requirements for the program include a 350-square foot common meeting space for students. The medical school has committed to providing such a space, which would be furnished with a computer, telephone, locking cabinets, seating, work space, and open shelving.

With an entering class of 6 student FTE, direct costs are estimated to be $24,234 per FTE in the first year of the program. At full enrollment in year five, the direct cost would be $11,016 per FTE. The average direct cost of instruction for graduate students in the health sciences at the University of Washington is $18,024; this figure includes both master's and doctoral students, including medical students. Average direct cost of instruction for graduate students in health sciences at Washington State University is $12,179. The cost estimates in the proposal do not include costs associated with funding teaching or research assistantships. Students may enter the program with funding support through faculty research grants, state or federal training grants, or their own resources.

Staff Analysis

The proposed program would support the unique role and mission of the institution by providing training in an interdisciplinary field that would support the training of the next generation of researchers and educators. The program also addresses the strategic master plan's goals of (1) providing opportunities for students to earn degrees and (2) responding to the economic needs of the state by providing training that would support the professional development of individual students and develop the faculty who will train the workforce for a growing and essential industry. In addition, the program responds to demonstrated student, employer, and community needs, consistent with the state and regional needs assessment and the institution's own assessment of need.

The program draws on experienced and well-qualified faculty who are acknowledged as experts in their field and applauded for their excellence in research. External reviews attest to the quality of the faculty and the research program at the University of Washington's Department of Rehabilitation Medicine.

The criteria and approach for student and program assessment is well-defined and based on measurable outcomes using multiple sources of information and various points in time.

The proposed program would employ an advisory committee and a variety of outside programs and groups to attract and retain a diverse student body. In addition, the program would admit students from diverse professional and educational backgrounds. It would offer a curriculum that focuses on common elements across disciplines for a better shared understanding of rehabilitation science and give students the tools they need to assume a leadership role, with an emphasis on research and teaching.

The admission process has the potential to become cumbersome and confusing. External reviewers and the committee expressed concerns about admission every other year. The approach proposed in the response to allow certain students to enter out of sequence may result in a de facto annual admission process. The program should monitor this closely, including follow-up with inquirers who do not apply (especially in off years) and consider ways in which it can admit annually while still cycling the curriculum on a two-year rotation (perhaps by offering the introductory course annually).

The program would be one of only a few in the country. The program would not duplicate existing programs and would be offered at a reasonable cost.

Recommendation

Based on careful review of the program proposal and supplemental sources, HECB staff recommend approval of the Ph.D. in Rehabilitation Science at the University of Washington.

The Education Committee met on July 13, 2006 and voted unanimously to recommend approval of the Ph.D. in Rehabilitation Science.

RESOLUTION NO. 06-15

WHEREAS, The University of Washington proposes to offer a Doctor of Philosophy in Rehabilitation Science; and

WHEREAS, The program would support the unique role and mission of the institution by providing students with an opportunity to earn a research-oriented doctorate in a field with substantial need; and

WHEREAS, The program would respond to demonstrated student, employer, and community needs, consistent with the state and regional needs assessment and the institution's own assessment of need; and

WHEREAS, The recruitment and diversity plan is well-defined and builds upon existing programs at the university; and

WHEREAS, The program has undergone an extensive development and review process and has received support from external experts; and

WHEREAS, The costs are reasonable;

THEREFORE, BE IT RESOLVED, That the Higher Education Coordinating Board approves the Doctor of Philosophy in Rehabilitation Science at the University of Washington.

Adopted:

July 27, 2006

Attest:

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Gene J. Colin, Chair

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Bill Grinstein, Vice Chair